



DEPARTMENT OF THE AIR FORCE

59TH MEDICAL WING (AETC)
LACKLAND AIR FORCE BASE TEXAS

17 MAR 2016

MEMORANDUM FOR SGVT

ATTN: CAPT RYAN B SHAVER

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled Anticoagulation Quality Assessment in Patients with Nonvalvular Atrial Fibrillation (NVAf) and Comparison with Major Trials of Direct-Acting Oral Anticoagulants presented at Texas Society of Health-System Pharmacists, Alcalde, Texas 22-24 April 2016 with MDWI 41-108, and has been assigned local file #16118.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS			
TO: Clinical Research Division/SGVU (59 MDW/SGVU)	FROM: Author's Name, Rank, Grade, Office Symbol Ryan B Shaver, Capt, O-3, SGVPI	PROTOCOL NUMBER: C.2016.25e	
PROTOCOL TITLE - [NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.] Anticoagulation Quality Assessment in Patients with Nonvalvular Atrial Fibrillation (NVAf) and Comparison with Major Trials of Direct-Acting Oral Anticoagulants			
1. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED 			
2. FUNDING RECEIVED FOR THIS STUDY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO FUNDING SOURCE: 			
3. IS THIS MATERIAL CLASSIFIED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
4. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NOTE: If the answer is "YES" then attach a copy to the Agreement to the Publications/Presentations Request Form.			
5. MATERIAL IS FOR (Check appropriate box or boxes for approval with this request.) <input checked="" type="checkbox"/> DOMESTIC RELEASE <input type="checkbox"/> FOREIGN RELEASE (ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED)			
<input type="checkbox"/>	PUBLICATION/JOURNAL (List intended publication/journal)		
<input type="checkbox"/>	PUBLICATION ABSTRACT (List intended journal.)		
<input type="checkbox"/>	POSTER (To be demonstrated at meeting/Name of Meeting, City, State, and Date of Meeting)		
<input checked="" type="checkbox"/>	PLATFORM PRESENTATION (At civilian institutions/Name of Meeting, State, Date of Meeting) Texas Society of Health-System Pharmacists/ALCALDE/Texas/April 22-24		
<input type="checkbox"/>	OTHER (Describe: Name of Meeting, City, State, and Date of Meeting)		
6. WHAT IS THE EXPECTED DATE YOUR PRESENTATION/PUBLICATION WILL BE SUBMITTED TO THE DEFENSE TECHNICAL INFORMATION CENTER (DTIC)? Apr 1, 2016			
POINT OF CONTACT			
7. WHO IS THE PRIMARY 59 MDW POINT OF CONTACT? (Last, First, MI.) (Include email) Fenzl, Heather, W. Major, heather.fenzl@us.af.mil			DUTY PHONE/PAGER No. 210-916-7633
AUTHORSHIP AND CO-AUTHOR(S) (List in the order they will appear in the manuscript)			
LAST NAME, FIRST NAME AND MI.	GRADE/RANK	SQUADRON/GROUP/OFFICE SYM	INSTITUTION (If not 59 MDW)
a. Primary/corresponding author Ryan B Shaver	Capt	959 CSPP/SGVPI	
b. R. Scott Holuby	Civ	959 CSPP/SGVPI	
c. Thoma C Shank	Civ	959 CSPP/SGVPI	
d.			
e.			
f.			
g.			
I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401, IP AND 59 MDW 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.			
AUTHOR'S PRINTED NAME/RANK/GRADE Ryan B Shaver, Capt	AUTHOR'S SIGNATURE SHAVER.RYAN.B.1392237190 <small>Digitally signed by SHAVER.RYAN.B.1392237190 DN: cn=US, o=U.S. Government, ou=DoD, ou=PEL, ou=USAF, cn=SHAVER.RYAN.B.1392237190 Date: 2016.03.03 19:56:44 -0500</small>		DATE Mar 3, 2016
APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE Fenzl, Heather, Maj, USAF, BSC Associate Program Director Pharmacy Practice Residency	APPROVING AUTHORITY'S SIGNATURE FENZL.HEATHER.WINFREE.1263938352 <small>Digitally signed by FENZL.HEATHER.WINFREE.1263938352 DN: cn=US, o=U.S. Government, ou=DoD, ou=PEL, ou=USAF, cn=FENZL.HEATHER.WINFREE.1263938352 Date: 2016.03.04 08:14:18 -0500</small>		DATE Mar 4, 2016

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS		
1st INDORSEMENT (SGVU Use Only)		
TO: Clinical Research Division (59 MDW/SGVU) (Contact 292-7141 for email instructions)	1. DATE RECEIVED 3/7/2016	2. ASSIGNED PROCESSING REQUEST FILE NUMBER 16118
3. DATE REVIEWED 8 Mar 2016	4. DATE FORWARDED TO PA	
5. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES If yes give date: <input type="checkbox"/> N/A </div>		
6. COMMENTS <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED The article is approved.		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Rocky Calcote, PhD Clinical Research Administrator	DATE <div style="text-align: center;">+</div>	SIGNATURE OF REVIEWER CALCOTE.ROCKY.D.1178245844 <small>Digitally signed by CALCOTE.ROCKY.D.1178245844 DN: cn=US, o=U.S. Government, ou=D&D, ou=PKI, ou=USAF, c=US, email=ROCKY.D.1178245844 Date: 2016.03.08 11:43:26 -0800</small>
2nd INDORSEMENT (PA Use Only)		
TO: 59 MDW OFFICE OF PUBLIC AFFAIRS (PA)	1. DATE RECEIVED Mar 15, 2016	2. DATE FORWARDED TO 59 MDW/SGVU Mar 17, 2016
6. COMMENTS <input checked="" type="checkbox"/> APPROVED (In compliance with security and policy review directives.) <input type="checkbox"/> DISAPPROVED PA corrected "San Antonio Military Medication Center" (METHODS) to read "San Antonio Military Medical Center".		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Christopher Carwile, TSgt/E-6, NCOIC, PA	DATE Mar 16, 2016	SIGNATURE OF REVIEWER CARWILE.CHRISTOPHER.S TEWART.1280477229 <small>Digitally signed by CARWILE.CHRISTOPHER.S DN: cn=US, o=U.S. Government, ou=D&D, ou=PKI, ou=USAF, c=US, email=CARWILE.CHRISTOPHER.S Date: 2016.03.16 12:30:37 -0500</small>
3rd INDORSEMENT (SGVU Use Only)		
TO: 59 MDW/SGVU		1. DATE RECEIVED
2. SENIOR AUTHOR NOTIFIED BY PHONE OF APPROVAL OR DISAPPROVAL: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Could not be reached <input type="checkbox"/> Left message		
3. DATE WRITTEN NOTICE OF APPROVAL AND CLEARANCE MAILED TO AUTHOR:		
4. COMMENTS <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER	SIGNATURE OF REVIEWER	DATE

**ANTICOAGULATION QUALITY ASSESSMENT IN PATIENTS WITH
NONVALVULAR ATRIAL FIBRILLATION (NVAF) AND COMPARISON
WITH MAJOR TRIALS OF DIRECT-ACTING ORAL ANTICOAGULANTS**

(DOACs). Ryan B Shaver¹, R. Scott Holuby¹, Thomas C Shank², San Antonio Military Medical Center, San Antonio, TX¹, Pfizer Inc., San Antonio, TX².

PURPOSE: The benefits of warfarin anticoagulation therapy are strongly correlated with the ability to maintain patients' INR goal, known as the time in therapeutic range (TTR). TTR is reported as a percentage and there are three commonly used calculation methods (traditional, cross sectional, and Rosendaal). Differences in TTR calculations could alter perceptions about the effectiveness of warfarin therapy.

METHODS: At San Antonio Military Medical Center (SAMMC), we conducted a retrospective study to review of medical records. 312 patients with non-valvular atrial fibrillation (NVAF) on warfarin therapy who had an INR goal of 2-3 were identified. TTR was calculated using the three different methods. The primary end point was difference in calculated TTR in the SAMMC Anticoagulation Clinic (ACC) population.

RESULTS: INR data were collected for all warfarin-treated NVAF patients seen in the ACC from 5 Jan to 30 Dec 2015. A total of 5580 INR values for 312 patients were included in the analysis. The mean (SD) for patient-level TTRs using the traditional and Rosendaal methods were 68.5% (66.6-70.4) and 72.4% (70.2-74.6), respectively. Comparing the results using the paired t-test resulted in a significant difference between methods ($p < 0.0001$). The cross sectional method produced a TTR of 74.4%. All published DOAC trials used the Rosendaal method to measure TTR. The mean (SD) for the Rosendaal TTRs at SAMMC and published in the ENGAGE-AF TIMI trial were 72.4% (19.6) and 64.9% (18.7) respectively; these means were significantly different ($p < 0.001$). Since the SD was not reported for the other three DOAC trials (ARISTOTLE, RE-LY, and ROCKET-AF), comparing the confidence intervals of these trials showed no overlap with SAMMC's ACC.

CONCLUSIONS: For patients treated at SAMMC's ACC, there was a significant difference between the Rosendaal TTR and traditional TTR and between the traditional TTR and the cross sectional TTR. There was no apparent difference between the cross sectional and Rosendaal TTRs. Although significant differences were seen in two of the three TTR comparisons, this alone does not suggest which method of calculation was most accurate. Each method has strengths and limitations and all three methods should be used to help determine the effectiveness of an ACC. The ENGAGE-AF TIMI has the highest TTR of the DOAC trials and was closest in value to our patient population, yet the TTR was still significantly lower than that calculated for our patients. This raises the question whether the effectiveness of the DOACs in their major trials can be directly compared (i.e. have equal effectiveness) to a patient population with a greater TTR. Further research looking at outcomes in our patients may be warranted. Patients should be thoroughly evaluated for potential benefits, and with an understanding of the generalizability of the DOAC trials, when switching anticoagulation therapy.



**DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND**

11 March 2016

MEMORANDUM FOR 59 MDW

ATTN: CAPT RYAN B. SHAVER

FROM: 502 ISG/JA

SUBJECT: Ethics Review for Presentation Approval Request (Shaver)

1. Capt Shaver submitted a request for a legal review of an abstract titled "Anticoagulation Quality Assessment in Patients with Nonvalvular Atrial Fibrillation (NVAf) and Comparison with Major Trials of Direct-Acting Oral Anticoagulants (DOACs)". The author plans to present this research as a platform presentation at the Texas Society of Health-System Pharmacists/ALCALDE in Frisco, Texas on 22-24 April 2016. This legal review is limited to the ethics issues regarding the presentation. The abstract contains the required disclaimer discussed below. The abstract must also be submitted for Public Affairs approval. There are no conflict of interest issues with presenting this research at this professional society meeting.
2. FACTS: Capt Shaver plans to present his abstract titled "Anticoagulation Quality Assessment in Patients with Nonvalvular Atrial Fibrillation (NVAf) and Comparison with Major Trials of Direct-Acting Oral Anticoagulants (DOACs)" at the Texas Society of Health-System Pharmacists 2016 Annual Seminar in Frisco, Texas on 22-24 April 2016.
3. LAWS AND REGULATIONS: DoD 5500.07-R, Joint Ethics Regulation (JER), section 3-305 lays out rules governing "Teaching, Speaking and Writing." If the presentation will "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force, the presenter is required to include a disclaimer that states the "views presented are those of the speaker or author and do not necessarily represent the views of DoD or its Components."
4. ANALYSIS: The presentation does not "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force, however, the abstract does address research done as part of the author's military medical practice. Additionally, the presenter's affiliation with the military will presumably be included as part of the presentation. Therefore, the author has included the required disclaimer that the views presented are those of the authors and do not necessarily represent the views of DoD or its Components on the slide presentation. Although the disclaimer language included on the presentation is not verbatim from the JER, the language used is appropriate and clearly captures the intent of the language used in the JER. There are no apparent conflicts of interest that would prohibit the presentation.
5. CONCLUSIONS: The abstract presented for review included the disclaimer required by the JER. There are no conflicts of interest.

6. If you have any questions, please call me at 210-671-5771.

A handwritten signature in blue ink, appearing to read 'V. Foster', written in a cursive style.

VERNISHA N. FOSTER, Captain, USAF
Assistant Staff Judge Advocate

I concur.

A handwritten signature in blue ink, appearing to read 'Mark E. Coon', written in a cursive style.

MARK E. COON, Major, USAF
Acting Chief, Civil Law